

SUCCESS OF THE CHINESE SUGAR-CANE.

Washington, Dec. 16, 1886.

A circular is about being issued from the United States Patent Office by Commissioner Mason, under the special direction of D. J. Browne, esq., which will be sent to the different State Agricultural Societies in the United States, accompanied by a parcel of the Chinese sugar-cane seed, raised under the supervision of the above-named office, and soliciting to cultivate the same, with a view of extending the culture of this plant in the several States. I have been kindly favored with an advance copy of the circular referred to for publication in THE TRIBUNE. It is a subject of the highest importance to the people of the United States, especially those of the Northern portion of the Union, and for this reason I make no apology for quoting largely.

The Commissioner says:

"The regulations of your Society, which will oblige me by putting it into your hands for cultivation are well likely to keep the seed pure and unadmixed with broom-corn, Guinea corn, or other plants."

one half of the product to your Society, for subsequent distribution. I think it would be proper to obtain a

⁶ This new plant seems to be destined to take an important position among our economical products. Its seeds were sent some six years ago from the North of China, by M. de Mordigny to the Geographical Society of Paris. From a cursory examination of a small field of it, growing at Verrière in France in the Autumn of 1854, Mr. D. J. Browne, then on a mission from this office for collecting agricultural information and products, was led to infer that, from the peculiarity of the

climate in which it was growing and its resemblance to Indian corn it would flourish in any region wherever

plant would arrive. From this source, 200 pounds of the seed was distributed to the War Relocation Authority Office among Members of Congress, with the view of experimenting with it in all parts of the Union, and thereby ascertaining its adaptation to the soil and climate, and its economical value to the United States. The seed was distributed in 1942, and is highly satisfactory, as it attained the height of twelve or fifteen feet as far north as St. Paul, Minnesota, and matured its seeds at various points in Massachusetts, New York, Pennsylvania and Illinois. The seed was also distributed to the War Relocation Authority as above. Mr. Browne obtained several bushels of seed of this plant, grown from that reported to have been brought from South Africa by Mr. Leonard Gray of Los Angeles, California, and proved to be identical with that obtained in 1934.

"There appears to be doubt among many in Europe, as well as in this country, as to the true botanical name of the plant. Mr. Louis Vilmorin, a botanical

cultivator of Turin, provisionally gave it the name of *Tolcus saccharatus*, which had previously been applied to the common broom-corn, if not to other spe-

As for at least varieties, of some milled plant. He also conjectured that it might be the *Sorghum vulgare* which is now called "milled plant" and which might comprehend a variety, as well as *Andropogon furcatus* Beauv. etc., of Kunth. Mr. Wray, who has devoted much time and attention to the cultivation of the sugar-cane, has been of opinion that it is the same plant with the view of extracting sugar from it, and that it is the same plant with the view of extracting oil from it, as he has seen it at Caffaria, there are at least twelve varieties of it, some of them growing to a height of twelve and fifteen feet, with stems as thick as those of the sugar-cane. He has also collected some seeds sent to the Museum of Natural History at Paris in 1840 by M. d'Abadie, there are thirty kinds of Sorghum, among which are some of the same kind as the milled plant, and some of the same kind as the milled plant. Others are of the opinion that the

common broom-corn (*Holcus saccharatus*), the chocolate or Guinea-corn (*Sorghum vulgare*), and the Chi-

the sugar cane *Sorghum saccharatum*, all of which contain more or less mucilaginous matter, belong to the same genus, but vary extremely in their uses, by differences of soil and climate, or by a disposition to sport after the manner of lucifer cane, and other plants under cultivation. The Chinese sugar cane, which is the most common, is raised for a larger proportion of juice, and consequently is more valuable for fodder and other economical uses.

In 1766 a plant analogous to the one in question was introduced into Florence, in Italy, by Pietro Borsari, for the extraction of sugar; yet it must have been of a different variety, as he describes its seeds as being of a clear, brown color, while those of the *Sorghum* are black, and its shape, as a shrub, is quite different. It is quite identical with those of the *Sorghum vulgare* of our old collections.

DESCRIPTION AND HABIT OF ITS GROWTH.

"The Chinese sugar-cane, when cultivated on ordinary land in the United States, somewhat after the

Stems are straight and smooth, often covered with a white bloom or down. Leaves are somewhat fleshy, falling off early, rarely remaining on the stems in autumn. The leaves are elegant in their form. Where cultivated in hills and gardens, the plants are branched and bear a terminal raceme eight or ten stalks each. It puts forth at its top several panicles of dense flowers, green at first, but changing into a bright yellow at maturity. In France, and in the tropical and northern sections of the United States, it has thus far proved an annual; but from observations made by M. Vilmorin in the mountains of the Pyrenees, and in Southern Spain, it is conjectured that, from the vigor and fullness of the lower part of the stalks in Autumn, by protecting them during the Winter, they would produce new plants in the following year.

can corn, and will resist the effects of considerable frost without injury, after the panicles appear, but not

its younger and more tender state. If sifted to remain in the field after the seeds have ripened and been moved, when the season is sufficiently advanced to move, it will grow better, but not so well as the topmost crop, or more so than stalk and mature a second crop of seeds. The average yield of seed to each panicle is at least a gill.

CULTIVATION.

"Since its introduction into this country, the Chinese sugar-cane has proved itself well adapted to our geographical range of Indian corn. It is of easy cultivation, being much less susceptible of frost damage, but not so much of drought, as the Indian corn. It does not succeed well, however, when sown broadcast with the view of producing fodder, as it will not grow to much more than one half its usual height. If the seeds are planted in rows, as is done in the South, the crop will grow to a height of 10 feet, and will give a crop of fodder can be grown in a season from the

same roots—the first one in June or July, to be cut before the pannicles appear, which would be green and succulent, and the others a month or

late, the young Indian corn, and the bushy melons, water melons, and the like, are sown in the open field. In the Northern States, where the season is too short and cool to ripen the seeds in the open air, the soil will necessarily have to obtain the seed from the previous year's sowing. In the Southern States, the seeds could start the plants under glass in the Spring, and remove them to the field or garden about the period of planting Indian corn, after which they would fully mature. In the latter case, the seeds from the plants of the preceding year may be sown in the open field, or they may be sown in a pot or a box, and if the soil is fertile or poor, they may be planted in rows or in hills, three feet apart, with the plant from ten to twelve seeds sown; but if the soil be rich, they may be planted in hills, five or more seeds to a hill. If the soil be poor, they may be sown in rows, and three or four in the row. The plants may be weeded or hoed twice in the course of a season, in a similar manner to those of the common garden melons. The seeds may be

growing up should be removed. The seed should not be sown before it acquires a dark or black hue.

to avoid the plants ledge or fall to the ground by the excessive weight of the beads, during storms of wind and rain, before the seed reaches the ground. The most convenient method is to cut off the stalks about a foot below the panicles, tie them up in bunches of twenty-five, and suspend them in any airy place, sheltered from the wind, until they are fully dried. The stalks should be cut just before the panicles begin to show, and the seed as soon as the seed arrives at the milky stage. It may be tied up in bundles, shocked and cured like the seed of the Indian corn. The seed should be employed as soon as the weather becomes cool, and the average temperature of the dry does not exceed 45 deg. or 50 deg. F. The stalks may be cut up into small pieces, or the panicles, or shocks, or stored in a mass for

ladder in sheds or barns. In a succulent state, where they will keep without injury, if desired, until Spring.

In this condition, however, the lower parts of the stalks will be found to be quite hard and tough, and will require to be chopped up and fed to the cattle for feeding. It will be necessary to take particular care should be observed to get to cultivate this plant in the vicinity of Donaghue, Painesville, and other places where the soil is rich in lime. Guinea corn, not boom-corn, as it is called, is a very good crop for growing, would render the lands very fertile, and would be a great benefit to the needs of the people. The sugar and molasses produced from this cane in New-Hampshire, Massachusetts, and other Northern States, and numerous letters attesting its great value, have reached this city.

The *Boston Journal* reports Antioch College, Ohio, of which Horace Mann is President, as being in a flourishing condition, and fast laying above financial difficulties. The statement of admitting female students is also given.